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THE TRANSLATIONS OF HUGO SANCTELLIENSIS

IN the history of culture in the Romance countries of mediæval Europe an important place must be given to the movement which it is becoming common to call the renaissance of the twelfth century. This revival of learning had many aspects, according as we consider it from the point of view of classical literature, of law, of natural science, or of philosophy and theology; but on its philosophical and scientific sides it owed its significance to the influx of a great body of new knowledge, coming in some measure from direct contact with Greek writers in the Norman kingdom of Sicily and elsewhere,¹ but derived for the most part through the intermediary of Arabic and Jewish sources as these were made accessible in central and northern Spain. Here the chief center was Toledo, where a large amount of Arabic literature survived the Christian conquest of 1085 and whence in the course of the twelfth and thirteenth centuries an active school of translators spread over western Europe the Latin versions of Aristotle, Ptolemy, Euclid, Galen, Hippocrates, and their Arabic expositors and commentators which constituted the basis of study and teaching in the mediæval universities. The impulse to this movement would seem to have come in the first instance from Raymond, archbishop of Toledo from 1126 to 1151,² under whom we find the archdeacon of Segovia, Dominic Gondisalvi, and a converted Jew named John of Seville³ busy with versions of Avicenna and various astronom-

¹ Haskins and Lockwood, *The Sicilian Translators of the Twelfth Century and the First Latin Version of Ptolemy's Almagest*, in *Harvard Studies in Classical Philology*, XXI, 75-102.

² Gams, *Kirchengeschichte von Spanien*, III, 1, pp. 20-23, 37.

³ On the Toletan translators see Jourdain, *Recherches critiques sur l'âge et l'origine des traductions latines d'Aristote* (Paris, 1843), pp. 107-120; Rose,

ical and astrological treatises; but it would be a mistake to regard it as confined to Toledo or to these men. John of Seville was in relations, how close we do not know, with a group of scholars from other lands, including Plato of Tivoli, an Englishman named Robertus Retinensis, Hermann the Dalmatian and his pupil Rudolph of Bruges, who worked, mainly on astronomical subjects, in various cities of northern Spain and, probably, southern France.⁴ Plato, who is found in Spain as early as 1136,⁵ is connected particularly with Barcelona; Hermann and Robert first appear in 1141 as students of astrology on the banks of the Ebro, and one or both of them can be traced at Segovia, Leon, Toulouse, Béziers,⁶ and

Ptolemäus und die Schule von Toledo, in *Hermes*, VIII, 327-349; Wüstenfeld, *Die Uebersetzungen arabischer Werke in das Lateinische*, in *Abhandlungen* of the Göttingen Academy (1877), XXII, 25-39; Correns, *Dominicus Gundissalvi de Unitate*, in *Beiträge zur Geschichte der Philosophie des Mittelalters* (1891), I, 1; Bülow, *Des Dominicus Gundissalinus Schrift von der Unsterblichkeit der Seele*, *ibid.* (1897), II, 3; Steinschneider, *Die hebräischen Uebersetzungen des Mittelalters* (Berlin, 1893), pp. 981-984; *id.*, *Die europäischen Uebersetzungen aus dem Arabischen*, in *Sitzungsberichte* of the Vienna Academy, phil.-hist. Kl. (1904), CXLIX, 4, pp. 32, 40-50.

⁴ Boncompagni, *Sulle versioni fatte da Platone Tiburtino* (Rome, 1851), from *Atti dell' Accademia Pontificia*, IV; Wüstenfeld, *l. c.*, pp. 25-53; Steinschneider, *Vienna SB.*, CXLIX, 4, pp. 33-34, 62-66, 67-73, 74-75; Björnbo, *Hermannus Dalmata als Uebersetzer astronomischer Arbeiten*, in *Bibliotheca Mathematica*, third series, IV, 130-133; Clerval, *Les écoles de Chartres au moyen âge* (Paris, 1895), pp. 189 ff.; *Dictionary of National Biography*, on Robert de Retines. The relations of these men to John of Seville appear from the dedications of translations. See Steinschneider, *Hebr. Uebers.*, pp. 281, 568, 582, and for Rudolph of Bruges the introduction to his treatise on the astrolabe: *Huius instrumenti formulam dilectissimo domino suo Iohanni David Rodolfus Bruggensis Hermannii secundi discipulus describit*. Naples, Biblioteca Nazionale, MS. VIII. C. 50, not foliated; British Museum, Cotton MS. Vespasian A. II, f. 35; MS. Lat. 16552, in Bubnov, *Gerberti Opera Mathematica* (Berlin, 1899), p. 115 n.

⁵ His translation of the *Liber embadorum* of Savasorda, edited by Curtze in *Abhandlungen zur Geschichte der Mathematik*, XII, 1-183, is dated in the year 510 of the Hegira, *i. e.*, 1116, but an examination of the position of the sun and planets there given (p. 182) shows that the real date is August 13, 1145, an error doubtless started by a scribe who wrote DX for DXL.

⁶ I can find no ground for accepting the assumption of Steinschneider (*Vienna SB.*, CXLIX, 4, p. 74) and Björnbo (*Bibliotheca Mathematica*, IV, 131) that the "Tolosa" of the MS. designates the unimportant Tolosa, in Guipuzcoa, rather than the obvious Toulouse. The "Biternis" of MS. Naples VIII. C. 50 is in all probability meant for "Biterris," the usual Latin form of Béziers. For mention of Leon, see Bubnov, *Gerberti Opera*, pp. xxv, cxi, 115 n.

Pamplona, where Robert became archdeacon. It is the purpose of this paper to call attention to an active and hitherto unknown center of such studies at Tarazona, in Aragon, and to examine the work of a contemporary translator, Hugo Sanctelliensis, of whom exceedingly little has hitherto been known.

It is well to bear in mind that in the actual process of transmission of ancient learning to Latin Europe accident and convenience played a large part. The early translators groped somewhat blindly in the mass of Greek and Arabic works which were suddenly disclosed to them; they cared as much for astrology as for astronomy, often preferred an Arabic commentator to the subject of his commentary, and sometimes postponed the translation of the most important works because of their length or the difficulties of the subject-matter. Moreover the translators worked in different places, so that they might easily duplicate one another's work, and the translation which was the earliest or the most accurate did not always secure the widest circulation.⁷ Thus in the case of Ptolemy his *Planisphere* was one of the books translated by Hermann the Dalmatian in 1143;⁸ the Latin version of the *Optics*, which has survived the loss of both the Greek and the Arabic texts, was made from the Arabic in Sicily about the middle of the century; while his great work, the *Almagest*, became known at first only through the translated compend of al-Fargani⁹ and passed into general use, not in the first and more faithful version made from the Greek in Sicily about 1160, but in the translation from the Arabic which Gerard of Cremona completed at Toledo in 1175.¹⁰ On the other hand, Ptolemy's astrological treatise, the

⁷ Björnbo, *Die mittelalterlichen lateinischen Uebersetzungen aus dem Griechischen auf dem Gebiete der mathematischen Wissenschaften*, in *Archiv für die Geschichte der Naturwissenschaften*, I, 387 (= *Festschrift Moritz Cantor anlässlich seines achtzigsten Geburtstages*, Leipzig, 1909, p. 95), suggests that the first translation made after the revival of the eleventh and twelfth centuries was the one which held the field; but the opposite was true in the case of the *Almagest*, as appears below.

⁸ Heiberg, *Ptolomaei Opera* (Teubner, 1907), II, clxxxvii; Björnbo, in *Bibliotheca Mathematica*, IV, 130-133.

⁹ On which see Steinschneider, *Hebr. Uebers.*, p. 554; Vienna SB., CXLIX, 4, p. 44.

¹⁰ Haskins and Lockwood, in *Harvard Studies*, XXI, 77-84. A fragment of this translation from the Greek, but without the preface which fixes the date,

Quadripertitum, was the first of his works to be translated into Latin, in the version produced by Plato of Tivoli in 1138,¹¹ and the abridgment of this, the *Fructus* or *Centiloquium*, which was ascribed to Ptolemy throughout the Middle Ages, was translated somewhat earlier. The Latin rendering of the *Centiloquium* bears in most of the manuscripts the date of 1136, and while it was formerly ascribed to Plato of Tivoli, it is now, on the authority of an Erfurt manuscript, generally assigned to John of Seville.¹² Whether this attribution is correct and how many versions of the *Centiloquium* were made, only a comparison of the numerous copies can determine, but in any event there is extant in the Biblioteca Nazionale at Naples¹³ a translation prepared by Hugo Sanctelliensis for the bishop of Tarazona, as appears from the following preface:

Incipiunt fructus Ptolomei, liber scilicet quem grecorum quidam centum verba appellant, Hugonis Sanctelliensis translatus. Prologus eiusdem ad Michaellem Tirassone antistitem.

De hiis que ad iudiciorum veritatem actinent, cum in illis totus astronomie consistat effectus secundum arabice secte verissima[m] inquisitionem et tam grecorum quam arabum quibus artis habiti sunt profexores famosissimi auctoritatem, volumina decem in hiis de multimoda auctorum copia eligendis diucius obversatus, ne tante expectationis fructus minor tantique laboris merces in aliquo deficere videretur, de arabico in latinum translataui sermonem. His enim quot sufficiunt ut decet preiacentibus, tota huius artis structura atque series dignissimo gaudebit effectui. Ut enim Aristotiles in libro de signis superioribus asseruit, Siquis prudentissimus faber sive architectus in construenda cuiuslibet hedificii machina congruis et quot sufficiant careat instrumentis, totam fabricam vacillare aut aliquid minus perfectum inveniri necesse est. Quod si nec desit

was discovered independently at Florence by Björnbo (*Archiv Gesch. Naturwiss.*, I, 392) and described by Heiberg, in *Hermes*, XLV, 57-66.

¹¹ Vienna SB., CXLIX, 4, p. 65.

¹² Leclerc, *Histoire de la médecine arabe* (Paris, 1876), II, 374; Steinschneider, *Hebr. Uebers.*, pp. 527-529; Vienna SB., CXLIX, 4, p. 41; Nallino, *Albatenii opus astronomicum* (Milan, 1903), I, lvii.

¹³ MS. VIII. D. 4, copied at Naples in the fifteenth century. The text proper begins: Verbum primum. Astrorum sciencia de te et de illis. Hoc in sermone de te et de illis videtur velle Ptholomeus duplicem esse astrorum scienciam. . . . Still another version of the *Centiloquium* was used by Albertus Magnus. *Catalogus codicum astrologorum grecorum*, V, 97; Steinschneider, in *Zeitschrift für Mathematik und Physik*, XVI, 383.

huiusmodi sufficiencia cum opificis industria, non aliud postulat examen, unde et quasi sese comitancia sunt et aliud alio indigere videtur. Nec ab huius ordinis serie declinat quod in prologo dicitur sapiencia sine eloquencia parum prodesse civitatibus, eloquencia sine sapiencia prodesse nunquam, obesse plerumque. Quia ergo Ptholomeus inter ceteros astronomie professores precipuus habetur interpret et auctor post *Almagesti* et *Quadripartitum* hunc solum de iudiciis astrorum reliquid tractatum, et ut tue, mi domine tirassoniensis antistes, satisfiat iubsioni, eius translacionis fructum ego Sactelliensis adporto, hac verum occasione compulsus ne dum in portu iudiciorum navigas in cimba locatus vasa saxosa formides et ne de tanti preceptoris operibus quippiam abesse queratis. Hic enim si quelibet hucusque circa huiusmodi negocium fuerat ambiguitas poterit aboleri, si quelibet digressionis circuicio poterit breviri, quidquid hians vel minus perfectum hiis centum verbis poterit reparari. Unde ex ipsius auctoris edicto tuam non incongruum video exortari diligentiam ne tante sapiencie archana cuilibet indingno tractanda commictas et ne quemlibet participem adhibeas qui potius gaudet librorum numero quam eorum delectetur artificio.

The dedication to Bishop Michael establishes an approximate date. Of unknown origin, this prelate was placed over the see of Tarazona in 1119, immediately after the recovery of that region from the Moors by Alfonso VII and seven years before Raymond became archbishop of Toledo, and continued in office until 1151. His labors for the establishment of his authority and the restoration of the ecclesiastical organization throughout his diocese are attested by a number of contemporary documents,¹⁴ but he has not hitherto been known as a patron of learning. From the preface just quoted we see that the translation of the *Centiloquium* was made by his command, to serve as a guide to the voluminous body of astrological literature which had already been placed at his disposal; and while we must make due allowance for the high-sounding praise of his learning and wisdom in the prefaces printed below, the mere list of the translations made at his orders shows that the *insaciabilis philosophandi aviditas* ascribed to him¹⁵ is no empty phrase. If he likes compendious treatises, he wishes them to be correct,¹⁶ nor does he desire mere rule-of-thumb manuals which do not explain their reasons.¹⁷ He cannot have been very

¹⁴ Lafuente, in *España sagrada*, XLIX, 125-142, 330-368.

¹⁵ *Infra*, p. 7.

¹⁶ See the preface to the *Liber imbrium*, *infra*, p. 12.

¹⁷ P. 7.

familiar with Arabic, else there would have been no need of Latin versions for his use, yet he searches for Arabic manuscripts on his own account, one of the texts translated having been found by him *in rotensi armario et inter secretiora bibliotece penetralia*.¹⁸ No place is mentioned, but Tarazona would seem most likely, and the library was doubtless a collection of books left in their cases by the departing Moors.

The author of this preface, Hugo Sanctelliensis, though not previously connected with the *Centiloquium* by bibliographers, has been known as the translator of certain other astrological works, but his time and place have not before been determined. The principal authorities on the occidental translations from the Arabic, Wüstenfeld¹⁹ and Steinschneider,²⁰ make Michael a French bishop and are inclined to place Hugo in the latter part of the Middle Ages, and while the late Paul Tannery would seem to have reached correct conclusions on these matters, he died before presenting any evidence in support of them.²¹ As at least one manuscript of Hugo's translations is of the twelfth century,²² he cannot be put later, and the mention of Bishop Michael in the prefaces fixes him definitely in the second quarter of this century and in Aragon. His surname appears in various forms—Sanctelliensis, Sanctellensis, Sanctallensis, Sanctaliensis, Sandaliensis, Satiliensis, Strellensis, and, in Provençal, de Satalia²³—without any indication of the country. None of these forms suggests France or Italy, while they all point to Santalla, a place-name common in the northwest of

¹⁸ P. 8.

¹⁹ Göttingen *Abhandlungen*, XXII, 22, 120.

²⁰ *Hebr. Uebers.*, pp. 566–567, 574; Vienna *SB.*, CXLIX, 4, pp. 35–37. Steinschneider's list of Hugo's writings, which is so far the most complete, enumerates al-Fargani, the Pseudo-Aristotle, the *Liber imbrium*, the *Geomantia*, and the *De spatula*.

²¹ The materials for this article were collected and the conclusions drawn before I discovered that Tannery, shortly before his death, had placed Hugo between 1120 and 1150 (*Bibliotheca Mathematica*, II, 41). An earlier note of the same author, while assigning him to Aragon, gave as his date the first half of the eleventh century, an obvious impossibility (*Comptes-rendus de l'Académie des Inscriptions*, XXV, 529).

²² MS. Selden Arch. B. 34, in the Bodleian, containing the translation of al-Fargani.

²³ For the Provençal form see Paul Meyer, in *Romania*, XXVI, 247.

Spain, especially in Galicia.²⁴ A reference to the Gauls in one of his prefaces—*gallorum posteritas tua benignitas largiatur*²⁵—suggests that Bishop Michael, and perhaps Hugo, had some connection with France; very likely copies of these translations were sent beyond the Pyrenees in the same way as those of the Toledo school. Nothing is known of Hugo's relations with the other translators of his age, nor have we any external evidence for his biography; the most that we can do is to examine the treatises upon which he worked, and in these, it is plain, he was closely under the orders of his patron bishop.

So far as the preface to the *Centiloquium* throws light on Hugo's literary labors, it shows him as a student of astrology and divination. From books dealing with these subjects, which he regards as the real justification for the study of astronomy, he has selected and turned into Latin ten volumes which exhibit the principles and applications of the art in all its aspects. The titles of these treatises are not given, but an examination of the numerous translations preserved under his name enables us to identify six extant versions of astrological and similar works, besides the *Centiloquium*, while in these reference is made to at least five others. From an astronomical point of view, the most important of these is a treatise with the following introduction:²⁶

Incipit tractatus Alfragani de motibus planetarum commentatus ab Hugoni Sanctaliensis.

Quia nonnullos nec inmerito te conturbat quod priscorum astrologorum intentio multas et varias in suis voluminibus, in his precipue que de stellarum collocatione et situ descripta arabes azig appellant, videtur protulisse sententias, nullam tamen quare potius sic aut sic agere eorum suaderet tradicio protulere rationem, unde huiusmodi minus plena perfectaue volumina pro auctoris defectu

²⁴ According to Madoz é Ibañez, *Diccionario geográfico-estadístico-histórico de España* (Madrid, 1846-1850) there are twenty places of this name in the province of Lugo, one in the province of Coruña, and one, the largest, in the province of Leon. There is also a Santalle in the province of Oviedo and a Santalha in Traz os Montes.

²⁵ *Infra*, p. 12. This is the passage that misled Wüstenfeld and Steinschneider into thinking Michael a Gallic bishop.

²⁶ Bodleian Library, MS. Selden Arch. B. 34, ff. 11-62v, of the twelfth century. Also in MS. Savile 15, f. 205, saec. xv; and in Caius College, Cambridge, MS. 456, saec. xiii (James, *Catalogue*, p. 531).

lectoris sensum et intelligentiam corrumpunt. Que cum ita se habeant, nichil ob stare videtur artis istius emulos, hos de quibus loquimur, gemino urgere incommodo, ut videlicet ex ignorantia aut ex invidia hoc factum fuisse coniectent. Nam inter multiplices antiquorum tractatus, de quorum videlicet prudentia ac discretione nulla est hesitatio, nonnulla legimus ea ratione fuisse descripta que tamen ut preceptori sic et lectori inutilia totius posteritatis clamat assertio. In libro autem Alhoarizmi quoniam huiusmodi diversitates te repperire confiteris, eum ex invidia ut supradiximus aut ex ignorantia suspectum esse palam est, sed etiam quendam Alfargani librum de rationibus azig Alhoarizmi imperfectum nec sufficientem te asseris repperiri, ubi videlicet que facilia sunt expediens que intricata et difficilia ad intelligendum fuerant pretermisit. Quia ergo, mi domine tyrassonensis antistes, ego Sanctelliensis tue petitioni ex me ipso satisfacere non possum, huius commenti translationem quod super eiusdem auctoris opus edictum in rotensi armario et inter secretiora bibliotece penetralia tua insaciabilis philosophandi aviditas meruit repperiri, tue dignitati offerre presumo. Habet enim ex tantis astronomie secretis ut placeat et ut ad omnium ex eadem materia voluminum expositionem ex sui integritate sufficiat. Quamvis tamen Alfargani edicione[m] minus plenam perfectamque cognoscam, cum ex aliis suis operibus perfectus et sapiens comprobetur, hec quam subscribam mihi videtur fuisse occasio. Potuit enim fieri ut morte preventus talem relinqueret, aut si perfectum atque emendatum eadem intercessit occasio ne id divulgaret, unde aliquid inde corrumpi aut ab invidorum manibus ut eius auctoritati quicquam derogarent abici satis liquido constat argumento, vel forsitan hic idem Alfargani, quod prudencioris cautele est, tante subtilitatis archana aggredi formidans difficillima pretermittens cetera reseravit. Nemo enim ad huius expositionis intelligentiam accedere potest nisi geometrie institutis et universo mensurandi genere quasi ad manum plenissime instruatur. Ne itaque antiquorum vestigiis penitus insistens a modernis prorsus videar dissentire, non per dialogum, ut apud arabes habetur, verum more solito atque usitato hoc opus subiciam, ac deinceps non solum Quadrupertiti atque Almaiezti ab Alkindio datam expositionem sed etiam quoddam Aristotilis super totam artem sufficiens et generale commentum, si vita superstes fuerit et facultas detur, te iubente aggrediar.

Ad ingressum cuiuslibet arabici mensis, ut ait Alhoarizmi. . . .

As here given from the Selden manuscript, the title of this work is misleading and should be corrected from the other copies to *Hamis Benhamie Machumeti frater de geometria mobilis quanti-*

tatis et azig, hoc est canonis stellarum rationibus. What we have is not al-Fargani's explanation—this indeed the bishop has found insufficient—of the astronomical tables of al-Khowarezmi, which go back apparently to the Indian astronomers, but a commentary on al-Fargani written, with the aid of the tables and geometrical methods of Ptolemy, by a later astronomer who has recently been identified with Mohammed ben Ahmed el-Biruni.²⁷ A Hebrew translation of this commentary, preserving the questions and answers of the original, was made by Abraham ibn Ezra at Narbonne about 1160,²⁸ with an introduction which shows certain parallelisms with that of Hugo, but no Latin version has hitherto been identified.²⁹ The discovery of such a version, by facilitating a comparison with the translation of the Khorasmian tables made by Adelard of Bath in 1126,³⁰ may be expected to throw some light on the relations between Greek, Indian, and Arabian astronomy. It would be interesting to know in what form the bishop, whose knowledge of Arabic must have been inadequate for the free use of the works which he had Hugo translate, used the Khorasmian tables and the explanation of al-Fargani.

Of the two other works which Hugo has here promised to translate, the commentary of al-Kindi seems to have been lost,³¹ but the *generale commentum* of Aristotle is doubtless contained in two manuscripts of the Bodleian³² under the high-sounding title: *Liber Aristotilis de .255. indorum voluminibus universalium questionum tam generalium quam circularium summam continens.* The attri-

²⁷ Suter, *Der Verfasser des Buches 'Gründe der Tafeln des Chowarezmi,'* in *Bibliotheca Mathematica*, IV, 127-129, where the utility of a comparative study is suggested.

²⁸ Steinschneider, in *Zeitschrift der deutschen morgenländischen Gesellschaft*, XXIV, 339-359, XXV, 421; *Hebr. Uebers.*, pp. 572-574.

²⁹ Steinschneider, *Hebr. Uebers.*, I. c.; Suter, in *Abhandlungen zur Geschichte der mathematischen Wissenschaften*, XIV, 158.

³⁰ Bodleian, MS. Auct. F. 1. 9; ff. 99v-159v; Chartres, MS. 214, ff. 41-102; Bibliothèque Mazarine, MS. 3642, ff. 82-87; Madrid, Biblioteca Nacional, MS. 10016, formerly in the chapter library at Toledo. Cf. Haskins, *Adelard of Bath*, to appear in the *English Historical Review* in 1911.

³¹ A commentary on the *Almagest* appears in the Arabic catalogue of his works (Flügel, in *Abhandlungen für Kunde des Morgenlandes*, I, 2, p. 27, No. 123) but has not been identified among those extant (Suter, in *Abh. Gesch. Math.*, X, 25).

³² MS. Digby 159; MS. Savile 15, f. 185.

bution to Aristotle will deceive no one,³³ but the account of the books upon which the compilation is based may contain something of interest for students of ancient astrology. From certain phrases of the preface it would seem that, while Hugo has been for some time a devotee of Arabian science, he has only recently (*nunc*) and comparatively late in the day (*serus ac indignus minister*) entered the bishop's service. Beyond this the prologue, being chiefly devoted to an account of the two hundred and fifty volumes from which the work is compiled, yields no new information for the translator's biography. The opening and closing portions are:

Ex multiplici questionum genere et ex intimis philosophie secretis quibus frequenter mee parvitatibus aures pulsare non desinis subtilissime tue inquisitionis archanum et celebris memorie intrinsecam vim et purissime discretionis intelligentiam, ad quam videlicet nostri temporis quispiam aspirare frustra nititur, manifestius licet attendere. Quare quod ex libris antiquorum percepi aut experimento didici aut existimatione sola credidi aut exercitio comparavi, et assidua scribere cogit exortatio et imperitiae veretur formido. Ad graviora transcendere subtiliora penetrare novis etiam affluere tanta preceptoris daret auctoritas, si congrua ociandi daretur facultas. Nam humani generis error, ut qui inscientie crapula sui oblitus edormit stulticie nubibus soporata iudicio philosophantium sectam estimans lacivienti verborum petulantia, sicut huius temporis sapere negligit, sapientes et honestos inconstantie ascribit, veritatis concives imperitos diiudicat, verecundos atque patientes stolidos reputat. Ego tamen, quoniam auctoritate Tullii ad amicum libera est iactantia,³⁴ amore discipline cui semper pro ingenii viribus vigilanter instituti arabes ingressus, si voto potiri minime contigisset, indos autem Egiptum pariter adire, si facultas unde libet³⁵ subveniat insatiata philosophandi aviditas omni metu abiecto nullatenus formidaret, ut saltem, dum ipsius philosophiae vernulas arroganti supercilio negligunt, scientie tamen quantulamcumque portionem vix tandem adeptam minime depravari contingat sed potius ab eius amicis et secretariis venerari. Nunc autem, mi domine antistes Michael, sub te tanto scientiarum principe me militari posse triumpho, quem tocus honestatis fama et amor discipline insatiatus ultra modernos vel coequevos sic extollunt ut nemo huius temporis recte sapiens

³³ I find no other mention of this compilation. For other pseudo-Aristotelian works on astrology, magic, and divination, see *Catalogus codicum astrologorum graecorum*, I, 82, 83; V, 92, 96, 102; Vienna SB., CLI, 1, pp. 6-8; *Centralblatt für Bibliothekswesen*, Beiheft XII, 87-91.

³⁴ Doubtful; *iactantia* is not Ciceronian.

³⁵ The Savile MS. has: unde libri.

philosophi nomen et tante dignitatis vocabulum te meruisse inuideat. Unde fit ut hoc duplici munere beatus, dum hinc amor hinc honestas tertium quod est amor honestus constituent, non modicum probitatis habes solacium. Ego itaque Sanctelliensis Hugo tue sublimitatis serus ac indignus minister, ut animo sic et corpore labori et ocio expositus dum et mentis corporis torporem excitando pulsas oblivionis delens incommodum, quoniam id assidua vult exortatio quod a nullo modernorum plenissime valet explicari, ne plus videar sapere quam oportet sapere, quodque a meipso haberi scientie negat viduitas ab aliis mutuari priscorum multiplex suadet auctoritas, hunc librum ex arabice lingue opulentia in latinum transformavi sermonem. Sed quoniam, ut ait quidam sapiens, tam secretis mysticisque rebus vivaciter pertractandis multimoda sunt auctoritatum perquirenda suffragia, istius auctor operis ex .cc.l. philosophorum voluminibus qui de astronomia conscripserunt hoc excultum esse asseruit, a quorum nominibus serio conterendis proprie narrationis duxit exordium. . . .

Hunc ergo, mi domine, ex tot ac tantis philosophorum voluminibus et quasi ex intimis astronomie visceribus ab eodem, ut iam dictum est, excepi, tamen et si mea de arabico in latinum mutuavit devocio suprema, tamen tue tam honeste ammonicionis optatos portus dabit correptio. Explicit prologus. Incipit Aristotilis comentum in astrologiam. Primo quidem omnium id recte atque convenienter preponi videar. . . .

Among more special works on astrology, we learn that Hugo translated four treatises on nativities, one of these, from the Arabic of Masallah, beginning as follows:³⁶

Liber Messehale de nativitatibus .14. distinctus capitulis Hugonis Sanctalliensis translacio. Prologus eiusdem ad Michaellem Tirasone antistitem.

Libellum hunc Messehale de nativitatibus, etsi apud nos Albu-mazar et Alheacib Alcuft ex eodem negocio et nostre translacionis studio plenissime habeantur, ob hoc placuit transferri ut quemadmodum ex eius secretis et iudiciorum via et ceteris astronomie institutis tua, mi domine antistes Michael, pollet scientia tuumque pre ceteris studium nec inmerito gloriatur, sic et in genezia, nativitatum dico, speculatione tanti preceptoris certa imitando vestigia copiosius triumphet. Hoc igitur ego Sanctelliensis, non tam meo labore faciente quam auctoris testimonio confisus, ut placeam mitto compendium, quendam alium librum de eadem materia a quodam Messehale discipulo Abualy Alhuat nomine editum deinceps tracta-

³⁶ Bodleian, MS. Savile 15, f. 177v. This translation is unknown to the bibliographers.

turus, ut et supra nominatis voluminibus hoc attestante maior insit auctoritas et tanquam variis diversarum opum ferculis tua in hoc negotio sacies ayiditas. . . . Ut alio sicut idem asserit Messehala nullatenus videatur indigere. Explicit prologus. Incipit textus. Quamvis librum istum ex ordine a libro secretorum assumpto per .14. capitula dividendum proposuerim. . . .

Of the authors of the two versions which are here mentioned as already completed, Albumazar is, of course, abu Ma'aschar Dja'afar, author of a number of works on astronomy and astrology, including one on nativities which has not yet been specially studied;³⁷ Alheacib Alcufi I have not identified, unless the latter name be a corruption of Alkindi.³⁸ Various manuscripts of abu Hali's work on the same subject exist, all of them anonymous except one in the Bodleian which ascribes the translation to John of Seville.³⁹

Hugo's translation of another work of Albumazar dealing especially with meteorological predictions is found in a dozen manuscripts.⁴⁰ The preface reads:

Incipit liber ymbrium ab antiquo indorum astrologo nomine Iafar editus deinde vero a Cillenio Mercurio abbreviatus. Superioris discipline inconcussam veritatem. . . . Quia ergo, mi domine antistes Michael, non solum compendiosa sed etiam certa et ad unguem correcta te semper optare cognovi, hunc de pluviis libellum ab antiquo indorum astrologo Iafar nomine editum, deinceps a Cillenio Mercurio sub brevitatis ordine correctum, tue offero dignitati, ut quod potissimum sibi deesse moderni deflent astrologi gallorum posteritati tua benignitas largiatur. Incipit series libri. Universa astronomie iudicia.⁴¹ . . .

Hugo is not mentioned in the text but is found in the margin of one of the manuscripts.⁴² Two similar treatises, ascribed to

³⁷ On his writings see Steinschneider, *Hebr. Uebersetzungen*, pp. 566 ff., and Vienna SB., CLI, 35-38; Suter, in *Abhandl. Gesch. Math.*, X, 28-30; Houtsma, *Encyclopaedia of Islam*, I, 100.

³⁸ Ja'akub ben Ishak al-Kindi, who wrote on nativities. Steinschneider, *Hebr. Uebers.*, p. 563; Suter, *l. c.*, pp. 24-25.

³⁹ MS. Laud 594. See Steinschneider, in Vienna SB., CXLIX, 4, p. 46; and in *Bibliotheca Mathematica*, 1890, pp. 69-70.

⁴⁰ Besides those mentioned by Steinschneider, *Hebr. Uebers.*, p. 566, see MS. Bodl. 463, f. 20 (= Bernard, No. 2456); Corpus Christi College, Oxford, MS. 233; Bibliothèque Nationale, MS. Lat. 7329, f. 66v, MS. Lat. 7316, f. 167 (extract only). Printed at Venice in 1507 with al-Kindi, *De pluviis*.

⁴¹ Bodleian, MS. Savile 15, f. 175v.

⁴² Steinschneider, *l. c.*

Massallah and al-Kindi, appear as having been translated by a Master Drogo or Azogo, which has been conjectured to be a corruption of Hugo;⁴³ but as these are not accompanied by prefaces, the question must for the present remain open.

Those who look for signs in the heavens are likely also to look for them on the earth, and we are not surprised to find that Hugo was the author of an elaborate treatise on geomancy, based upon the work of an unknown Tripolitan (Alatrabulucus) and sufficient to give him a certain reputation among vernacular writers as an authority on this art.⁴⁴ The copy in the Bibliothèque Nationale begins:⁴⁵

Incipit prologus super artem geomantie secundum magistrum Ugonem Sanctelliensem interpretem qui eam de arabico in latinum transtulit.

Rerum opifex Deus qui sine exemplo nova condidit universa, ante ipsam generationem de illorum futuro statu mente diiudicans, hec quidem etiam que de sue universitatis thesauro rationali creature dignatur singulis prout ipse vult distribuit. Unde universa creatura tam rationalis quam irrationalis vel inanimata eidem exhibet obedientiam ac, licet in vita ad secularium ordinem dilapsa, eum saltem ex sola unitate veneratur. Imaginarie priusquam fierent cuncta habens eorundem noticiam archano cordium quasi suspectam et intellectualem infudit. Habite tandem creature hic modus consistit ut summitates atque venerandos scriptorum institutores atque huiusmodi computationis industria quasi quadam compagine sociaret, ut ablata tocus alterationis rixa rationale alias positiva iusticia nexu equabili federaret adinvicem. Cum igitur universos stolidos videlicet tanquam sapientes ad philosophandum pronos fore contigisset, eruditior prudentium secta ad computandi artem et astronomie secreta rimanda mentis oculum revocans, astrorum loca cursus directos retrogradationes ortus occasus sublimationes depressiones et que sunt in his alterationes atque admiranda prodigia attendens, astrologorum minus prudentium multiplicem cognovit

⁴³ Leclerc, *Histoire de la médecine arabe*, II, 476 (where MS. Lat. 7439 should be 7440, and 10251 is incorrect); Steinschneider, *Hebr. Uebers.*, pp. 564, 600; Vienna SB., CXLIX, 4, pp. 13, 36-37; *Abh. Gesch. Math.*, X, 6.

⁴⁴ Paul Meyer, *Traité en vers provençaux sur l'astrologie et la géomancie*, in *Romania*, XXVI, 247-250, 275. Cf. Steinschneider, Vienna SB., CXLIX, 4, p. 36.

⁴⁵ MS. Lat. 7354, written in the thirteenth century, apparently in Spain or southern France. The treatise of Hugo on geomancy preserved in the Laurentian and studied by Meyer has a different *incipit* and may be another work.

errorem. Hac igitur ratione cogente compendium hoc certissimum ex his omnibus prudens adinvenit antiquitas. Denique apud universos philosophie professores ratum arbitror et constans quicquid in hoc mundo conditum subsistendi vice sortitum est haut dissimile exemplar in superiori circulo possidere, quicquid etiam hic inferius motu quolibet agitur superioris regionis motus sibi congruos imitari. Sicque manifestum est quia huiusmodi figure quas hic prosequi volumus signorum pariter et lunarium mansionum formas omnino sequuntur . . . Quia huiusmodi artificium antiquissimum fore et apud sapientum quamplurimos dignos et indignos in usu fuisse philosophorum antiquitas refert, ego Sanceulliensis geomantie inscriptionem aggredior et tibi, mi domine tirasonensis antistes, ex priscorum opulentia huiusmodi munusculum adporto, aeremantia et piromantia quas audivi sed minime contingit reperiri postpositis, deinceps idromantiam tractaturus . . . Que quidem disciplina sub quadam existimatione potissimum manat ab antiquorum peritissimis, ut iam dictum est, qua ipsi noverint ratione certis experimentis usitata. Explicit prologus.

Arenam limpidissimam a nemine conculcatam et de profundo ante solis ortum assumptam. . . .

Whether Hugo ever wrote on hydromancy or succeeded in informing himself on aeromancy or pyromancy, we cannot say; but while searching the heavens above and the earth beneath and the waters under the earth, he did not disdain the humbler form of divination which draws its inferences from the shoulder-blades of animals, and we have under his name a short treatise on spatulamancy which claims to go back ultimately to Greek sources:⁴⁶

Refert Ablaudius babilonicus inter antiquissima grecorum volumina cartam vetustissimam in qua de spatule agnitione nonnulla continebantur precepta apud Athena[s] se invenisse. . . . Hunc igitur librum, cuius auctor apud caldeos Anunbarhis (?) apud grecos Hermes fuisse legitur, et tante antiquitatis arkana et latinum aggrediar sermonem. . . . Quia igitur, mi domine antistes Michael, tuo munere tuaque munificentia ut me ipsum habeo, sic et philosophantium vestigii desidia et ignorantia gravatus insisto, ne ceteris compensatis istius expers inveniariis discipline, hoc tibi de spatula mitto preludium. . . .

⁴⁶ Bodleian, Ashmolean MS. 342, f. 38, headed "Tractatus de spatula" and referred to in the margin as "Hugonis translatio." The tract in MS. Canon. Misc. 396, ff. 106-110, mentioned by Steinschneider (Vienna SB., CXLIX, 4, p. 37) is different, beginning, Incipiam adiutorio Dei. Steinschneider curiously fails to understand the meaning of *spatula*.

In medio itaque cartilaginis foramen ultra eminens repertum
pecoris domino pacem nunciat . . .

As a result of this investigation we now have, as against the five previously known, seven extant translations by Hugo, not counting those ascribed to Drogo and Azogo, besides two others which have been lost or are still to be identified⁴⁷ and three which he promises but may not have completed.⁴⁸ None of these are dated, but the *Centiloquium* is one of his later efforts, since ten have been produced before it, while the Khorasmian commentary is evidently early, being anterior to the Pseudo-Aristotle, which appears to have been translated soon after he entered the service of Bishop Michael. It would seem that both translator and patron gave chief attention first to astronomy and later to astrology, but to draw a sharp line between these subjects would be contrary to the spirit of mediæval, if not of Greek, learning, to which they were simply the pure and the applied aspects of the same subject. There is no evidence on Hugo's part of initiative or power of adaptation, indeed he expressly disclaims the ability to elucidate these problems from his own knowledge; he was a translator, rather than a compiler or popularizer. There is, at the same time, no indication of any connection with the other translators of his age, and the fact that certain of the treatises at which he labored were also translated by John of Seville indicates that they worked independently. That Hugo's versions nevertheless obtained a certain currency is shown by the number and wide distribution of the existing manuscripts, and the range and quantity of his work entitle him to a respectable place among the Spanish translators of the twelfth century.

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⁴⁷ The *De nativitatibus* of Albumazar and of Alheacib Alcufi. Tannery has shown that there is no good reason for assigning to our Hugo the *Practica Hugonis*, a geometrical treatise of the twelfth century. *Bibliotheca Mathematica*, II, 41.

⁴⁸ Abu Hali, *De nativitatibus*; al-Kindi, *Expositio Quadripertiti atque Almaiesti; Idromantia*.